

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence Governor Thomas W. Easterly

Commissioner

TO: Interested Parties / Applicant

DATE: January 8, 2014

RE: Bedford Recycling / 093 - 33554 - 00038

FROM: Matthew Stuckey, Branch Chief

Permits Branch Office of Air Quality

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures FN-REGIS.dot 6/13/2013







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REGISTRATION OFFICE OF AIR QUALITY

Bedford Recycling 904 Summit Lane Bedford, IN 47421

Pursuant to 326 IAC 2-5.1 (Construction of New Sources: Registrations) and 326 IAC 2-5.5 (Registrations), (herein known as the Registrant) is hereby authorized to construct and operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this registration.

<u> </u>	
Registration No. R093-33554-00038	
Issued by:	Issuance Date: January 8, 2014
Jason R. Krawczyk, Section Chief Permits Branch Office of Air Quality	<u>,</u>



Bedford Recycyling Page 2 of 7
Bedford, Indiana Registration No. R093-33554-00038

Permit Reviewer: James Mackenzie

SECTION A

SOURCE SUMMARY

This registration is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Registrant should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Registrant to obtain additional permits pursuant to 326 IAC 2.

A.1 General Information

The Registrant owns and operates a stationary scrap metal processing plant.

Source Address: 904 Summit Lane, Bedford, IN 47421

General Source Phone Number: (812) 275-6883

SIC Code: 5093 (Scrap and Waste Materials)

County Location: Lawrence County

Source Location Status: Attainment for all criteria pollutants

Source Status: Registration

A.2 Emission Units and Pollution Control Equipment Summary

This stationary source consists of the following emission units and pollution control devices:

The source consists of the following unpermitted emission units:

- (a) One (1) vehicle and sheet metal shredder, identified as P001, constructed in 1979, with a nominal capacity of 20 tons per hour, using a water injection system for fire/explosion suppression, exhausting to the atmosphere.
- (b) One (1) material handling and conveyor system, identified as P002, constructed in 1979, with a nominal capacity of 20 tons per hour, consisting of the following:
 - (1) Load-in crane;
 - (2) In-feed conveyor;
 - (3) Shaker table;
 - (4) Belt # 1;
 - (5) Electromagnetic drum:
 - (6) Ferrous conveyor;
 - (7) Eddy current belt #1;
 - (8) Eddy current belt #2.
- (c) Material sorting storage piles with a ground coverage area of 2.0 acres.
- (d) One (1) torch cutting operation, identified as P004, with seven (7) individual oxyacetylene torches, exhausting directly to the atmosphere.
- (e) One (1) lead sweating operation with a capacity of 60 automobile shells per hour, using the oxyacetylene torches to sweat solder from auto shells.

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- (f) One (1) diesel fueling operation, identified as P005, with an annual dispensing capacity of 120,000 gallons per year, with the following storage units:
 - (1) One (1) 2,000 gallon tank;
 - (2) One (1) 500 gallon tank.
- (g) Gasoline and petroleum storage tanks with a capacity of less than 10,500 gallons:
 - (1) Two (2) 275 gallon reclaimed gasoline tanks;
 - (2) One (1) 250 gallon kerosene tank.
- (h) Natural gas-fired space heaters with heat input less than 10 MMBtu per hour.
- (i) Paved and unpaved roadways and parking lots with public access, identified as F001.

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SECTION B

GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this registration shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

B.2 Effective Date of Registration [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this registration is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

B.3 Registration Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation), this registration to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this registration.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this registration.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this registration shall not require revocation of this registration.
- (d) For any cause which establishes in the judgment of IDEM the fact that continuance of this registration is not consistent with purposes of this article.

B.4 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to Registration No. R093-33354-00038 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this registration.

B.5 Annual Notification [326 IAC 2-5.1-2(f)(3)] [326 IAC 2-5.5-4(a)(3)]

Pursuant to 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3):

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this registration.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

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Bedford, Indiana Registration No. R093-33554-00038

Permit Reviewer: James Mackenzie

Indiana Department of Environmental Management Compliance and Enforcement Branch, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, IN 46204-2251

(c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.6 Source Modification Requirement [326 IAC 2-5.5-6(a)]

Pursuant to 326 IAC 2-5.5-6(a), an application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

B.7 Registrations [326 IAC 2-5.1-2(i)]

Pursuant to 326 IAC 2-5.1-2(i), this registration does not limit the source's potential to emit.

B.8 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this registration, the Registrant shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this registration or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Registrant's control, the PMPs cannot be prepared and maintained within the above time frame, the Registrant may extend the date an additional ninety (90) days provided the Registrant notifies:

Indiana Department of Environmental Management Compliance and Enforcement Branch, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251

The Registrant shall implement the PMPs.

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Registrant to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.
- (c) To the extent the Registrant is required by 40 CFR Part 60 or 40 CFR Part 63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such OMM Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-5.1-2(q)] [326 IAC 2-5.5-4(b)]

C.1 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this registration:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.2 Fugitive Dust Emissions [326 IAC 6-4]

The Registrant shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE AND ENFORCEMENT BRANCH

REGISTRATION ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3).

Company Name:	Bedford Recycling	
Address:	904 Summit Lane	
City:	Bedford, Indiana 47421	
Phone Number:	(812) 275-6883	
Registration No.:	R093-33554-00038	
I hereby certify that Bed	· -	 □ still in operation. □ no longer in operation. □ in compliance with the requirements of Registration No. R093-33554-00038. □ not in compliance with the requirements of Registration No. R093-33554-00038.
Authorized Individual	(typed):	
Title:		
Signature:		
Phone Number:		
Date:		
		ource is not in compliance, provide a narrative e and the date compliance was, or will be
Noncompliance:		

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for Registration

Source Description and Location

Source Name: Bedford Recycling

Source Location: 904 Summit Lane, Bedford IN 47421

County: Lawrence

SIC Code: 5093 (Scrap and Waste Materials)

Registration No.: R093-33554-00038 Permit Reviewer: James Mackenzie

On August 22, 2013, the Office of Air Quality (OAQ) received an application from Bedford Recycling, related to the operation of an existing stationary scrap metal recycling plant.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Lawrence County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
111 1 20 11	" ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '

¹Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

Unclassifiable or attainment effective April 5, 2005, for PM2.5.

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Lawrence County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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(b) PM_{2.5}
Lawrence County has been classified as attainment for PM_{2.5}. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} emissions. These rules became effective on July 15, 2008. On May 4, 2011, the air pollution control board issued an emergency rule establishing the direct PM_{2.5} significant level at ten (10) tons per year. This rule became effective June 28, 2011. Therefore, direct PM_{2.5}, SO₂, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Other Criteria Pollutants
Lawrence County has been classified as attainment or unclassifiable in Indiana for PM₁₀, SO₂, NO₂, CO an Pb. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

The fugitive emissions of criteria pollutants, hazardous air pollutants, and greenhouse gases are counted toward the determination of 326 IAC 2-5.1-2 (Registrations) applicability.

Unpermitted Emission Units and Pollution Control Equipment

The Office of Air Quality (OAQ) has reviewed an application, submitted by Bedford Recycling on August 2, 2013, relating to the operation of stationary scrap metal processing operation. No record is found for previous approval of operation for this source. This Permittee has disclosed construction of the shredder facility in 1979, and the source is currently in operation, with emissions reported above exemption levels. The IDEM will issue a Registration for this source.

The source consists of the following unpermitted emission units:

- (a) One (1) vehicle and sheet metal shredder, identified as P001, constructed in 1979, with a nominal capacity of 20 tons per hour, using a water injection system for fire/explosion suppression, exhausting to the atmosphere.
- (b) One (1) material handling and conveyor system, identified as P002, constructed in 1979, with a nominal capacity of 20 tons per hour, consisting of the following:
 - (1) Load-in crane;
 - (2) In-feed conveyor;
 - (3) Shaker table;
 - (4) Belt # 1;
 - (5) Electromagnetic drum;
 - (6) Ferrous conveyor;
 - (7) Eddy current belt #1;
 - (8) Eddy current belt #2.
- (c) Material sorting storage piles with a ground coverage area of 2.0 acres.
- (d) One (1) torch cutting operation, identified as P004, with seven (7) individual oxyacetylene torches, exhausting directly to the atmosphere.

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- (e) One (1) lead sweating operation with a capacity of 60 automobile shells per hour, using the oxyacetylene torches to sweat solder from auto shells.
- (f) One (1) diesel fueling operation, identified as P005, with an annual dispensing capacity of 120,000 gallons per year, with the following storage units:
 - (1) One (1) 2,000 gallon tank;
 - (2) One (1) 500 gallon tank.
- (g) Gasoline and petroleum storage tanks with a capacity of less than 10,500 gallons:
 - (1) Two (2) 275 gallon reclaimed gasoline tanks;
 - (2) One (1) 250 gallon kerosene tank.
- (h) Natural gas-fired space heaters with heat input less than 10 MMBtu per hour.
- (i) Paved and unpaved roadways and parking lots with public access, identified as F001.

Integral Part of the Process" Determination

The applicant has submitted the following information to justify why the water injection system should be considered an integral part of the vehicle and sheet metal shredder:

The material input to the vehicle/metal shredder process consists primarily of automobile bodies. These junk vehicle bodies typically contain flammable materials including "fluff" which consists of nonmetallic car parts, i.e. dashboards, upholstery, carpeting, etc. The high speed action in the shredder creates high instantaneous temperatures. The simultaneous presence of flammable materials and ignition sources may result in fires and explosions which, if allowed to occur, would damage the shredding machine and would also result in shutdown of the process.

Water injection system prevents fire and explosion in two ways. One relates to a lowered temperature in the shredding chamber, which reduces the opportunity for auto-ignition. The second relates to the control of oxygen and prevention of spark transmission in the shredder chamber, which reduces the possibility for explosion. Although water injection does reduce particulate emissions, the water injection system serves a primary purpose other than pollution control.

IDEM, OAQ has evaluated the information submitted and agrees that the water injection system should be considered an integral part of the vehicle/metal shredding process. This determination is based on the fact that the primary purpose of the water injection system is to prevent fires and explosions. Therefore, the permitting level will be determined using the potential to emit after the water injection system.

Enforcement Issues

IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit rules.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination - Registration

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

			Pot	ential To	Emit of	the Entir	e Sourc	e (tons/year)		
Process/ Emission Unit	PM	PM ₁₀ *	PM _{2.5} *	SO ₂	NOx	VOC	СО	GHGs as CO₂e**	Total HAPs	Worst Single HAP
Shredder	2.34	2.37	2.37	0.00	0.00	21.90	0.00	0.00	2.83	0.73 Toluene
Material Handling	2.74	1.30	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Torch Cutting / Pb Sweating	3.95	3.95	3.95	0.00	0.00	0.00	0.00	0.00	0.30	0.29 Lead
Space Heaters	0.08	0.33	0.33	0.03	4.29	0.24	3.61	5,184	0.08	0.08 Hexane
Diesel Fuel: Store & Dispense	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00
Material Store Piles	0.95	0.95	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Haul Roads; Paved & Unpaved	10.48	2.64	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total PTE of Entire Source	20.57	11.52	8.12	0.03	4.29	22.80	3.61	5,184	3.25	0.73 Toluene
Exemptions Levels**	< 5	< 5	< 5	< 10	< 10	< 10	< 25	< 100,000	< 25	< 10
Registration Levels**	< 25	< 25	< 25	< 25	< 25	< 25	< 100	< 100,000	< 25	< 10

negl. = negligible

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of PM₁₀, PM_{2.5} and VOC are within the ranges listed in 326 IAC 2-5.1-2(a)(1). The PTE of all other regulated criteria pollutants are less than the ranges listed in 326 IAC 2-5.1-2(a)(1). Therefore, the source is subject to the provisions of 326 IAC 2-5.1-2 (Registrations). A Registration will be issued.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.
- (c) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2 e) per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

^{*}Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a regulated air pollutant".

^{**}The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

Bedford Recycling Bedford, Indiana Permit Reviewer: James Mackenzie

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.
- (b) The requirements of the New Source Performance Standards for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, 40 CFR 60, Subpart Kb, are not included in the permit since the two (2) gasoline tanks and one (1) kerosene tank each have storage capacities less than 75m³ (19,815 gal).
- (c) The requirements of the New Source Performance Standards for Secondary Lead Smelters, 40 CFR 60, Subpart L, are not included in the permit since the source does not operate a pot furnace of more than 250 kg charging capacity, blast furnace, and or a reverberatory furnace. The source uses oxyacetylene torches to sweat lead from solder on auto shells.
- (d) The requirements of the New Source Performance standards for Metallic Mineral Processing Plants, 40 CFR 60, Subpart LL, are not included in the permit since the source is not a metallic mineral processing plant as defined in 40 CFR 60.381. The source operates a metal recycling facility and does not produce metallic mineral concentrates from ore.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Category: Gasoline Dispensing Facilities, 40 CFR 63, Subpart CCCCC, are not included in the permit since no facility at the source dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine. The on-site storage tanks for gasoline are used during reclamation of remaining gasoline from the auto hulls.
- (f) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Primary Nonferrous Metals Area Sources—Zinc, Cadmium, and Beryllium, 40 CFR 63, Subpart GGGGG, are not included in the permit, since the source is neither a primary zinc production facility nor a primary beryllium production facility as defined in 40 CFR 63.11167.
- (g) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) Area Source Standards for Nine Metal Fabrication and Finishing Source Categories, 40 CFR 63, Subpart XXXXXX, are not included in the permit, since the source is not primarily engaged in the operations in one of the nine source categories listed in paragraphs (a)(1) through (9) of 40 CFR 63.11514.
- (h) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Secondary Nonferrous Metals Processing Area Sources, 40 CFR 63, Subpart TTTTTT, are not included in the permit, since the source does not engage in secondary nonferrous metals processing as defined in 40 CFR 63.11472.
- (i) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

(j) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source

thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

The following state rules are applicable to the source:

- (a) 326 IAC 2-5.1-2 (Registrations)
 Registration applicability is discussed under the Permit Level Determination Registration section above.
- (b) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
 The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.
- (c) 326 IAC 2-6 (Emission Reporting)
 Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (d) 326 IAC 5-1 (Opacity Limitations)
 Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
 - (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (e) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
 Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.
- (f) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
 The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.
- (g) 326 IAC 12 (New Source Performance Standards) See Federal Rule Applicability Section of this TSD.
- (h) 326 IAC 20 (Hazardous Air Pollutants) See Federal Rule Applicability Section of this TSD.

Permit Reviewer: James Mackenzie

The following state rules are applicable to the facilities:

Vehicle/Metal Shredding – P001

- (i) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
 Pursuant to 326 IAC 6-3-1(b)(14), the shredder is exempt from this rule because the potential to emissions are less than 0.551 pounds per hour.
- (j) 326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

 The requirements of 326 IAC 8-1-6 are not applicable to the vehicle and sheet metal shredder since the potential to emit VOC is less than twenty-five (25) tons per year and the unit was constructed in 1979, prior to the applicability date of January 1, 1980 for this rule.

Material handling and Conveyor System - P002

(k) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(14), all facilities in the Material Handling and Conveyor System are exempt from this rule because they each have potential particulate emissions of less than 0.551 pounds per hour.

Torch Cutting - P004

(I) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-1(b)(10), the torch cutting facility is exempt from this rule because it performs cutting of less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness or less.

Fuel Dispensing – P005

(m) 326 IAC 8-4-6 (Gasoline Dispensing Facilities)

The fueling operation dispenses diesel fuel. Neither diesel fuel nor kerosene are considered to be a motor vehicle fuel for the purposes of 326 IAC 8-4-6. Therefore, 8-4-6 does not apply to the fuel dispensing facility.

Space Heaters

- (n) 326 IAC 6-2 (Particulate Emissions Limitations for Sources of Indirect Heating) Each of the natural gas-fired space heaters is not subject to the requirements of 326 IAC 6-2, because they each are not an indirect heating unit.
- (o) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
 Each of the natural gas-fired space heaters at this source is exempt from the requirements of 326 IAC 6-3, because, pursuant to 326 IAC 1-2-59, liquid and gaseous fuels and combustion air are not considered as part of the process weight. In addition, pursuant to 326 IAC 6-3-1(b)(14), each of the natural gas-fired space heaters at this source is also exempt from the requirements of 326 IAC 6-3, because they each have potential particulate emissions of less than five hundred fifty one thousandths (0.551) pound per hour.
- (p) 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)
 Pursuant to 326 IAC 7-1.1-1, each of the natural gas-fired heaters at this source is not subject to the requirements of 326 IAC 7-1.1, since each has unlimited sulfur dioxide (SO₂) emissions less than twenty-five (25) tons per year and ten (10) pounds per hour respectively.

Bedford Recycling Page 8 of 8
Bedford, Indiana TSD for Registration No. R093-33554-00038

Permit Reviewer: James Mackenzie

(q) 326 IAC 8-1-6 (New Facilities; General Reduction Requirements)
 Each of the natural gas-fired heaters at this source is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each emission unit is less than twenty-five (25) tons per year.

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on August 22, 2013.

The operation of this source shall be subject to the conditions of the attached proposed Registration No. R093-33554-00038. The staff recommends to the Commissioner that this Registration be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to James Mackenzie at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-2641 or toll free at 1-800-451-6027 extension (3-2641).
- (b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.in.gov/idem

Appendix A: Emission Calculations
Company: Bedford Recycling
Address: 904 Summitt Lane, Bedford, IN 47421
Registration: R093-33554-000038
Permit Reviewer: James Mackenzie Date: 10/30/2013

SUMMARY

	Potential Emissions (tons/yr)												
Emission Unit	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	voc	со	GHG as CO₂e	Pb	Individ	ıal HAP	Total HAPs	
Shredder	2.37	2.37	2.37	0.00	0.00	21.90	0.00	0	0.00	0.73	Toluene	2.87	
Material Handling	2.74	1.30	0.20	0.00	0.00	0.00	0.00	0	0.00	0.00	-	0.00	
Torch Cutting / Pb Sweating	3.95	3.95	3.95	0.00	0.00	0.00	0.00	0	0.29	0.29	Pb	0.30	
Space Heaters	0.08	0.33	0.33	0.03	4.29	0.24	3.61	5,184	0.00	0.08	Hexane	0.08	
Diesel Fuel: Store & Dispense	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0	0.00	0.00	-	0.00	
Material Storage Piles	0.95	0.95	0.95	0.00	0.00	0.00	0.00	0	0.00	0.00	-	0.00	
Haul Roads; Paved & Unpaved	10.48	2.64	0.33	0.00	0.00	0.00	0.00	0	0.00	0.00	-	0.00	
Totals	20.57	11.52	8.12	0.03	4.29	22.80	3.61	5,184	0.29	0.73	Toluene	3.25	

Address: 904 Summitt Lane, Bedford, IN 47421

Registration: R093-33354-000038 Permit Reviewer: James Mackenzie Date: 10/30/2013

Unlimited Vehicle/Metal Shredder (P001) Emissions

Particulate Emissions

Process	Maximum	Particulate	PTE of PM/PM ₁₀ /PM _{2.5}				
Description	Capacity	Emission					
	Capacity	Factor	(lb/hr)	(tons/yr)			
Vehicle/Metal	(tons/hr)	(lbs/ton)					
Shredder (P001)	20	0.027	0.54	2.37			

Material is wetted with an integral smart water injection system to minimize explosion and fire hazards.

Particulate Emissions Factor is from Michigan Dept of Env Quality; Emission Test. Site: Louis Padnos, Grand Rapids. Water injection dust suppression system. (SMART System)

Particulate Emission Factor (0.027) provided by source is acceptable because it is more conservative than ISRI value used by IDEM as a default. See below.

The particulate emission factor for shredders (0.00257) from the Institute of Scrap Recycling Industries, Inc. "Title V Applicability Workbook" Appendix D, Table D-10.F for dry milling of an 75% Auto & 25% Scrap throughput mixture. Assumed PM = PM10 = PM2.5

Methodology:

PTE of PM/PM10 (lb/hr) = Maximum Capacity (tons/hr) * Emission Factor (lbs/ton)

PTE of PM/PM10 (tons/yr) = Maximum Capacity (tons/hr) * Emission Factor (lbs/ton) * 8760 hrs / 2000 lbs.

VOC Emissions

Process	Maximum	VOC Em	ission Factor	A	uto		Sheet						
Description	Capacity	Auto	Sheet	PTE	of VOC	PTE of VOC							
Vehicle/Metal	(tons/hr)	(lbs/ton) (lbs/ton)		(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)						
Shredder (P001)	20	0.25	0.14	5.00	21.90	2.80	12.26						

VOC emission factor is from the April 2010 Jackson, Michigan shredder VOC study conducted by OmniSource Corporation facility for a similar unit.

The PTE is based on the worst-case assumption that 100% auto scrap is being being processed.

Methodology:

PTE of VOC (lb/hr) = Maximum Capacity (tons/hr) * VOC Emission Factor (lbs/ton)

PTE of VOC (ton/yr) = Maximum Capacity (tons/hr) * VOC Emission Factor (lbs/ton) * 8,760 hrs / 2,000 lbs.

(Auto Shredding	ı)						Organic	HAPs							Metal HAPs		PCB's
	Maximum				Trichloro-												
Process	Capacity	Hexane	Benzene	MIBK	ethene	Toluene	Ethyl-benzene	m,p-Xylenes	Styrene	o-Xylene	Cumene	Napthalene	Isooctane	Cadmium	Chromium	Lead	PCB's
Description	(tons/hr)	(lbs/ton)	(lbs/ton)	(lbs/ton)	(lbs/ton)	(lbs/ton)	(lbs/ton)	(lbs/ton)	(lbs/ton)	(lbs/ton)	(lbs/ton)	(lbs/ton)	(lbs/ton)	(lbs/ton)	(lbs/ton)	(lbs/ton)	(lbs/ton)
e/Metal Shredder	20	0.0037	0.0019	0.0002	0.0005	0.0083	0.0019	0.0068	0.0009	0.0025	0.0002	0.0002	0.00543	1.16E-06	1.28E-06	7.9E-06	8.7E-05
					Trichloro-												
		Hexane	Benzene	MIBK	ethene	Toluene	Ethyl-benzene	m,p-Xylenes	Styrene	o-Xylene	Cumene	Napthalene	Isooctane	Cadmium	Chromium	Lead	PCB's
		(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
		0.33	0.17	0.02	0.05	0.73	0.17	0.60	0.07	0.22	0.02	0.01	0.48	0.00	0.00	0.00	0.01

Combined HAPS: 2.87

(Sheet Shreddin	g)								Orgar	ic HAPs								
	Maximum	Chloro-			Dichloro-				Methyl- Meth-			Ethyl-					1,4 Dichloro	
Process	Capacity	methane	1,3 Butadiene	Acrolein	ethene	Hexane	Benzene	Trichloroethene	acrylate	MIBK	Toluene	benzene	m,p-Xylenes	Styrene	o-Xylene	Cumene	benzene	Naphthalene
Description	(tons/hr)	(lbs/ton)	(lbs/ton)	(lbs/ton)		(lbs/ton)				(lbs/ton)		(lbs/ton)	(lbs/ton)	(lbs/ton)	(lbs/ton)	(lbs/ton)	(lbs/ton)	
e/Metal Shredder	20	0.00002	0.00003	0.00003	0.00006	0.00077	0.00025	0.00004	0.00007	0.00054	0.00241	0.00075	0.00261	0.00039	0.00103	0.00010	0.00004	0.00020
									Methyl								1,4	
		Chloro-			Dichloro-				Methacr			Ethyl-					Dichloro	
		methane	1,3 Butadiene	Acrolein	ethene	Hexane	Benzene	Trichloroethene	ylate	MIBK	Toluene	benzene	m,p-Xylenes	Styrene	o-Xylene	Cumene	benzene	Naphthalene
		(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	
		0.00	0.00	0.00	0.01	0.07	0.02	0.00	0.01	0.05	0.21	0.07	0.23	0.03	0.09	0.01	0.00	0.02

Combined HAPS: 0.82

Organic HAP Emission Factors determined from the April 2010 TO-15 stack test performed at the Jackson, Michigan OmniSource Corporation facility. Emission Factors are averages of three test runs.

The Organic HAP PTE is based on the worst-case assumption that 100% auto scrap is being being processed.

Metal HAP and PCB emission factors from the Institute of Scrap Recycling Industries, Inc. "Title V Applicability Workbook" Appendix D, Table D-11.F

Methodology:

Address: 904 Summitt Lane, Bedford, IN 47421

Registration: R093-33354-000038 Permit Reviewer: James Mackenzie

Date: 10/30/2013

Particulate Emissions: Material Handling Operations

Material Handling Rate (tph) 20

STEP	Process Description	Material Handled description	Potential airborne component	Step material handling rate (tons/hr)	Material Moisture Content M (%)	PM ₃₀ EF (lbs/ton)	PM ₁₀ EF (lbs/ton)	PM _{2.5} EF (lbs/ton)	PM ₃₀ EF (lbs/hr)	PM ₁₀ EF (lbs/hr)	PM _{2.5} EF (lbs/hr)	PTE PM ₃₀ (ton/yr)	PTE PM₁₀ (ton/yr)	PTE PM _{2.5} (ton/yr)
1	Crane load-in to infeed conveyor	scrap	soil/dust with scrap infeed	20	1.5	0.0083	0.0039	0.0006	0.165	0.078	0.012	0.72	0.34	0.05
2	Infeed conveyor drop into shredder	scrap	soil/dust with scrap infeed	20	1.5	0.0083	0.0039	0.0006	0.165	0.078	0.012	0.72	0.34	0.05
3	Drop from shredder to shaker table	shredded scrap	fluff dust	20	5	0.0015	0.0007	0.0001	0.031	0.015	0.002	0.13	0.06	0.01
4	Drop onto belt #1	shredded scrap	fluff dust	20	5	0.0015	0.0007	0.0001	0.031	0.015	0.002	0.13	0.06	0.01
5	Drop onto electromagnetic drum	shredded scrap	fluff dust	20	5	0.0015	0.0007	0.0001	0.031	0.015	0.002	0.13	0.06	0.01
6	Ferrous Conveyor Drop	ferrous product	dust on scrap	15	5	0.0015	0.0007	0.0001	0.023	0.011	0.002	0.10	0.05	0.01
7	ASR Seperator load-in	fluff	fluff dust	5	15	0.0003	0.0002	0.00002	0.002	0.001	0.000	0.01	0.00	0.00
8	Eddy Current 1 and 2 load-in	fluff	fluff dust	5	15	0.0003	0.0002	0.00002	0.002	0.001	0.000	0.01	0.00	0.00
9	Drop to eddy current (1) belt	fluff	fluff dust	2.5	15	0.0003	0.0002	0.00002	0.001	0.000	0.000	0.00	0.00	0.00
10	Drop to eddy current (2) belt	fluff	fluff dust	2.5	15	0.0003	0.0002	0.00002	0.001	0.000	0.000	0.00	0.00	0.00
11	Fines Conveyor Drop	fines	fines dust	1	15	0.0003	0.0002	0.00002	0.000	0.000	0.000	0.00	0.00	0.00
12	Coarse Fluff Conveyor Drop	fluff	fluff dust	1	15	0.0003	0.0002	0.00002	0.000	0.000	0.000	0.00	0.00	0.00
13	Small non-ferrous Conveyor Drop	non-ferrous product	dust on non-ferrous product	1.25	1.5	0.0083	0.0039	0.0006	0.010	0.005	0.001	0.05	0.02	0.00
14	Large non-ferrous Conveyor Drop	non-ferrous product	dust on non-ferrous product	1.75	1.5	0.0083	0.0039	0.0006	0.014	0.007	0.001	0.06	0.03	0.00
15	Ferrous load-out	ferrous product	dust on ferrous product	15	1.5	0.0083	0.0039	0.0006	0.124	0.059	0.009	0.54	0.26	0.04
16	Fines load-out	fines	fines dust	1	15	0.0003	0.0002	0.00002	0.000	0.000	0.000	0.00	0.00	0.00
17	Coarse fluff load-out	fluff	fluff dust	1	15	0.0003	0.0002	0.00002	0.000	0.000	0.000	0.00	0.00	0.00
18	Small non-ferrous load-out	non-ferrous product	dust on non-ferrous product	1.25	1.5	0.0083	0.0039	0.0006	0.010	0.005	0.001	0.05	0.02	0.00
19	Large non-ferrous load-out	non-ferrous product	dust on non-ferrous product	1.75	1.5	0.0083	0.0039	0.0006	0.014	0.007	0.001	0.06	0.03	0.00
											Totals	2.74	1.30	0.20

Methodology

Potential Emissons = (rate)(ton/hr) x (Ef) x (8,760)(hr/yr) x (1/2,000)(ton/lb)

Emission Factor calculation method from AP-42 13.2.4 Aggregate Handling And Storage Piles Emission Factor (EF) Calculated = (U/5)^{1.3}

sion Factor (EF) Calculated = $\frac{(0/5)^{-1}}{(M/2)^{1.4}}$

where: U = mean wind speed (MPH) =

M = material moisture content (%) =

k = particle size (< 30µm) multiplier =

 $k = particle size (< 10\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier = k = particle size (< 2.5\mu m) multiplier size (<$

9.6 1.5 0.74 0.35 0.053

(Source: Indiana State Climate Office)

Address: 904 Summitt Lane, Bedford, IN 47421

Registration: R093-33354-000038 Permit Reviewer: James Mackenzie Date: 10/30/2013

PM Emissions: Oxyacetylene Flame - Torch Cutting, Pb Sweating

	Number of	Max. Metal	Max. Metal			N FACTOR			EMIS:	SIONS		HAPS
Process	Stations	Thickness	Cutting Rate	(lb pollutant/1,000 inches cut, 1" thick)**					(lbs/hr)			
		Cut (in.)	(in./minute)	PM	Mn	Ni	Cr	PM & PM _{10/2.5}	Mn	Ni	Cr	Combined HAP's
Oxyacetylene Flame Cutting	7	18	0.5	0.1622	0.0005	0.0001	0.0003	0.613	0.002	0.0004	0.001	0.003
EMISSION TOTALS												
Potential Emissions lbs/hr								0.61	0.002	0.0004	0.001	0.003
Potential Emissions lbs/day								14.71	0.05	0.01	0.03	0.08
Potential Emissions tons/year								2.69	0.008	0.002	0.005	0.01

Methodology:

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

Process	Process Rate	Sweating, Pb*	Sweated Pb	PM Ef.	Pb Ef.	PTE PM	PTE Pb
	(shell/hr)	(lb/shell)	(ton/yr)	(lb/ton)	(lb/ton)	ton/yr	ton/yr
Lead (Pb) Sweating from Auto Shells	60	0.1375	36.135	70	16	1.26	0.29

Total HAPs 0.30

Methodology:

*Average total solder reclaimed per shell. Conservatively assumed 100% Pb. (Solder varies. Approximately ≈ 67% Sn / 33% Pb)

PM and Pb emission factors taken from AP-42; 12.11-2 (10/86); Secondary Lead Processing - Sweating.

Assume $PM_{2.5} = PM_{10} = PM$

Address: 904 Summitt Lane, Bedford, IN 47421

Registration: R093-33354-000038 Permit Reviewer: James Mackenzie Date: 10/30/2013

Combustion: Nat. Gas. Space Heaters

Heat Input Capacity HHV

MMBtu/hr

mmBtu

mmscf

Potential Throughput

MMCF/yr

10.0 1020

85.9

		Pollutant					
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor (lb/MMCF)	1.9	7.6	7.6	0.6	100	5.5	84
Potential Emission (ton/yr)	0.08	0.33	0.33	0.03	4.29	0.24	3.61

^{*}PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

			HAPs - (Organics		
	Benzene	Dichloro- benzene	Formaldehyde	Hexane	Toluene	
Emission Factor (lb/MMcf)	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	Total
Potential Emission (tons/yr)	9.02E-05	5.15E-05	3.22E-03	7.73E-02	1.46E-04	8.08E-02

			HAPs -	- Metals		
	Lead	Cadmium	Chromium	Manganese	Nickel	
Emission Factor (lb/MMcf)	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	Total
Potential Emission (tons/yr)	2.15E-05	4.72E-05	6.01E-05	1.63E-05	9.02E-05	2.35E-04

Methodology is the same as above.

Total HAPs	8.10E-02
Worst HAP	7.73E-02

The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Greenhouse Gas Calculations

	(Greenhouse Ga	s
	CO2	CH4	N2O
Emission Factor (lb/MMcf)	120,000	2.3	2.2
Potential Emission (ton/yr)	5,153	0.10	0.09
Summed Potential Emissions (ton/yr)		5,153	
CO ₂ e Total (ton/yr)		5,184	

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) +

^{**}Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Address: 904 Summitt Lane, Bedford, IN 47421

Registration: R093-33354-000038 Permit Reviewer: James Mackenzie Date: 10/30/2013

VOC: Fuel-Dispensing Operations

Fuel Emissions

1. Loading

(AP-42, Chapter 5)

Loading Losses:

$$LL = 12.46 \frac{SPM}{T}$$

where

S = Saturation Factor (Table 5.2-1, AP-42)

P = True vapor pressure of liquid loaded (psia) M = Molecular weight of vapors (lb/lb-mole)

T = Temperature, °R (°F + 460)

LL = Loading Loss Emission Factor (lb/kgal)

For diesel fuel:

(assume as mixture; C₉ - C₂₀ carbon chains)

S =	1.45	Throughput =	120,000 gal/year
P =	0.009	Uncontrolled Emission	7.55 lb/year
M =	205		0.0038 ton/year
T _	530		

LL = 0.063 lb/kgal 6.289E-05 lb/gal

2. Storage: P005-1 (2,0000 gal), P005-2 (500 gal) Storage Losses (TANKS 4.0.9d)

For diesel:

Uncontrolled Emission =

	Capacity	Emis	ssions
Tank #	(gal)	(lb/yr)	(ton/yr)
P005-1	2,000	2.27	0.001
P005-2	500	0.57	0.0003
		Total	0.0014

3. Vehicle Refueling

Uncontrolled Displacement Losses

(AP-42, Table 5-2.7)

$$E = 11.0(F)$$

where

E = Uncontrolled Emissions (lb/year)

F = Throughput (kgal)

For diesel:

F = 120 kgal E = 1320 lb/year **0.66 ton/year**

Summary

Diesel

Loading Emissions0.0038Storage Losses0.0014Refueling Emissions0.66

0.67 Total Diesel VOC Emissions (ton/yr)

Address: 904 Summitt Lane, Bedford, IN 47421

Registration: R093-33354-000038 Permit Reviewer: James Mackenzie

Date: 10/30/2013

Particulate Emissions: Storage Piles

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based #8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3.

(See AP-42, Supplement No. 14 for Compilation of Air Pollutant Emission Factors, 3rd Edition, 5/83)

Ef = 1.7*(s/1.5)*(365-p)/235*(f/15)

where Ef = emission factor (lb/acre/day)

s = silt content (wt %)

p = 120 days of rain greater than or equal to 0.01 inches

f = 15 % of wind greater than or equal to 12 mph

	_		Maxımum			
	Silt	Emission	Anticipated			
	Content	Factor	Pile Size	PM	PM_{10}	PM _{2.5}
Material	(wt %) ^a	(lb/acre/day)	(acres)	(ton/yr)	(ton/yr)	(ton/yr)
Siteel Scrap	2.2	2.60	2.00	0.95	0.95	0.95

Methodology

PTE (PM), $(ton/yr) = (Ef)(lb/acre/day) \times (Maximum Pile Size)(acres) \times (1/2,000)(ton/lb) \times (365)(day/yr)$ Assumption: PM = PM₁₀ = PM₂₅

Abbreviations

PTE = Potential to Emit

PM = Particulate Matter

 PM_{10} = Particulate Matter (<10 μ m)

 $PM_{2.5}$ = Particulate Matter (< 2.5 μ m)

^a Value obtained from AP-42 Table 13.2.2-1 (11/06), Silt Content, Unpaved Roads; Municipal Solid Waste Landfills (Lower boudry value is used due to general lack of friable material content in steel scrap recycling)

Address: 904 Summitt Lane, Bedford, IN 47421

Registration: R093-33354-000038 Permit Reviewer: James Mackenzie

Date: 10/30/2013

PM: HAUL ROADS

Potential throughput: (20)(ton/hr) x (8,760)(hr/yr) Vehicle payload

Round trip distance Annual VMT (PTE) Paved Haul Unpaved Haul

175,200	(ton/yr)
2	(ton)
0.125	(mi)
10,950	(mi)
50	%
50	%

UNPAVED ROADS - AP42 13.2.2 (11/06)

 $E = k \times (s/12)^a \times (W/3)^b$ $E_{ext} = E \times [(365 - P) / 365)]$ AP-42 13.2.2, Equation 1(a) AP-42 13.2.2, Equation 2

Constant	Description / Source	(PM ₃₀)	(PM ₁₀)	(PM _{2.5})
S	surf. mat. silt content (%); Iron/Steel Production	6.0	6.0	6.0
W	mean vehicle weight (tons) - loaded	7	7	7
а	Constant, AP-42 Table 13.2.2-2.	0.7	0.9	0.9
b	Constant, AP-42 Table 13.2.2-2.	0.45	0.45	0.45
k (lb/VMT)	Multiplier, AP-42 Table 13.2.2-2.	4.9	1.5	0.15
Р	number wet days in period	120	120	120
VMT	Vehicle Miles Traveled per annum, calculated	5,475	5,475	5,475
E	Size Specific Emission Factor, calculated (lb/VMT)	4.42	1.18	0.12
E _{ext}	Mitigated Emission Factor, calculated (lb/VMT)	2.96	0.79	0.08
PM PTE	Annual Emissions (tons)	8.12	2.16	0.22

PAVED ROADS - AP42 13.3.1 (1/11)

 $E = (k (sL)^0.91 \times (W)^1.02)(1-P/4N)$

AP-42 13.2.1.2, Equation 2

Constant	Description / Source	(PM ₃₀)	(PM ₁₀)	(PM _{2.5})
k, (lb/VMT)	Multiplier, AP-42 Table 13.21-1	0.011	0.0022	0.00054
sL	road surface silt loading (grains/m2)	15	15	15
W	average vehicle wt. in tons	7	7	7
Р	number wet days in period	120	120	120
N	number of days in averaging period	365	365	365
E	Emission Factor, calculated (lbs/VMT)	0.864	0.173	0.042
VMT	Vehicle Miles Traveled per annum, calculated	5,475	5,475	5,475
PM PTE	Annual Emissions (tons)	2.36	0.47	0.12

	TOTAL POTENTIAL ROAD EMISSIONS	10.48	2.64	0.33
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Methodology

Emissions, unpaved roads = $(E_{ext})(lb/VMT) \times (VMT) \times (1/2,000)(ton/lb)$ Emissions, paved roads = $(E)(lb/VMT) \times (VMT) \times (1/2,000)(ton/lb)$



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Michael Parsons

Bedford Recycling 904 Summitt Lane Bedford, IN 47421

DATE: January 8, 2014

FROM: Matt Stuckey, Branch Chief

Permits Branch Office of Air Quality

SUBJECT: Final Decision

Registration

093 - 33554 - 00038

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to: Larry Parsons, President Graham P. McRedmond W.Z. Baumgartner & Associates OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at ibrush@idem.IN.gov.

Final Applicant Cover letter.dot 6/13/2013





Mail Code 61-53

IDEM Staff	LPOGOST 1/8/2	2014		
	Bedford Recyclin	g 093 - 33554 - 00038 final)	AFFIX STAMP	
Name and		Indiana Department of Environmental	Type of Mail:	HERE IF
address of		Management		USED AS
Sender		Office of Air Quality – Permits Branch	CERTIFICATE OF	CERTIFICATE
		100 N. Senate	MAILING ONLY	OF MAILING
		Indianapolis, IN 46204	MAILING ONE	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee
											Remarks
1		Michael Parsons Bedford Recycling 904 Summitt Lane Bedford IN 47421 (Source CAA	TS) Via con	firmed delivery	1						
2		Larry Parsons President Bedford Recycling 904 Summitt Lane Bedford IN 47421 (RO CAATS)									
3		Bedford City Council and Mayors Office 1102 16th St Bedford IN 47421 (Local Office	ial)								
4		Lawrence County Board of Commissioners 916 15th Street Bedford IN 47421 (Local	al Official)								
5		Mr. Anthony Wray 1861 Buddha Bypass Rd Bedford IN 47421 (Affected Party)									
6		Mr. Bobby Minton 7745 S. Fairfax Rd Bloomington IN 47401 (Affected Party)									
7		Mr. Danny Arnold 374 Cedar View Ln. Bedford IN 47421 (Affected Party)									
8		Mr. David Weatherholt Boilermaker Local #374 4777 East County Road 2100 North Dale IN 47523 (Affected Party)									
9		Mr. Don Sherry 1111 215 St. Tell City IN 47506-2815 (Affected Party)									
10		Mr. David Reed RR 1 Box 157 Jasonville IN 47438 (Affected Party)									
11		Lawrence County Health Department 2419 Mitchell Rd. Bedford, IN 47421 (Health Department)									
12		Graham P. McRedmond W.Z. Baumgartner & Associates, Inc. PO Box 680369 Franklin TN 37068 (Consultant)									
13		Standish Farm Supply 1028 I Street Bedford IN 47421 (Affected Party)									
14		Virginia Jones 720 Colomubs Bedford IN 47421 (Affected Party)									
15		Charles & Myra Sutton 802 9th Street Bedford IN 47421 (Affected Party)									

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50,000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal
			insurance. See <i>Domestic Mall Manual</i> R900, S913, and S921 for limitations of coverage on inured and COD mail. See <i>International Mail Manual</i> for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.

Mail Code 61-53

IDEM Staff	LPOGOST 1/8/2	014		
	Bedford Recyclin	g 33554 (draft/final)	AFFIX STAMP	
Name and		Indiana Department of Environmental	Type of Mail:	HERE IF
address of		Management		USED AS
Sender		Office of Air Quality – Permits Branch	CERTIFICATE OF	CERTIFICATE
		100 N. Senate	MAILING ONLY	OF MAILING
		Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Harold & Amy 907 H Street Bedford IN 47421 (Affected Party)						_			ricinario
2		James & Sharon Thompson 527 Becks Addition Bedford IN 47421 (Affected Party)									
3		Marilyn K Armstrong 1008 I Street Bedford IN 47421 (Affected Party)									
4		Leslie & Betty Hart 1045 East Power Line Road Norman IN 47264 (Affected Party)									
5		Dustin Gabhart PO Box 653 Bedford IN 47421 (Affected Party)									
6		Gary & Nancy Terrell 688 F Street Bedford IN 47421 (Affected Party)									
7											
8											
9											
10											
11											
12											
13											
14											
15											

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50,000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal
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